

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-36 (Cancelled)

37. (Currently amended) A process for the manufacture of polymer coated composite substrate, said process comprising the steps of;

applying a chemically crosslinkable composition onto a surface of a compressible mat;
crosslinking the chemically crosslinkable composition without heating to form ~~forming~~ a chemically crosslinked polymer coating on a the surface of the compressible mat without heating, wherein the chemically crosslinkable composition is crosslinked concomitant with the chemically crosslinkable composition being applied to the surface of the compressible mat; and
compressing and heating the crosslinked coating and the compressible mat to form the polymer coated composite substrate.

38. (Original) The process of claim 37 wherein the compressible mat further comprises a sheet of paper which is glued to the surface of the mat.

39. (Original) The process of claim 38 wherein the chemically crosslinked polymer coating is formed on the paper.

40. (Original) The process of claim 37 wherein the polymer coated composite substrate is paper and the chemically crosslinked polymer coating is formed on a fiber mat and compressed with the mat as part of a papermaking process.

41. (Original) The process of claims 37, 38, 39, or claim 40 wherein the chemically crosslinked polymer is ionically crosslinked.

42. (Original) The process of claims 37, 38, 39, or claim 40 wherein the chemically crosslinked polymer is covalently crosslinked.

43. (Original) The process of claim 41 wherein the ionically crosslinked polymer has thermosetting functionality.

44. (Currently amended) A process for the manufacture of polymer coated composite substrate, said process comprising the steps of;

applying an ionically crosslinkable composition onto a surface of a compressible mat;
ionically crosslinking the ionically crosslinkable compsoition to form ~~forming~~ an
ionically crosslinked polymer coating on a the compressible mat, wherein the ionically
crosslinkable composition is ionically crosslinked concomitant with the ionically crosslinkable
composition being applied to the surface of the compressible mat; and

compressing and heating the crosslined coating and the mat to form the polymer coated composite substrate.

45. (Original) The process of claim 44 wherein the compressible mat further comprises a sheet of paper which is glued to the surface of the mat.

46. (Original) The process of claim 45 wherein the chemically crosslinked polymer coating is formed on the paper.

47. (Original) The process of claim 44 wherein the polymer coated composite substrate is paper and the chemically corsslinked polymer coating is formed on a fiber mat and compressed with the mat a spart of a papermaking process.

48. (Original) The process of claim 44 wherein the ionically crosslinked polymer has thermosetting functionality.